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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,722	06/18/2001	Giovanni Paoli	Q64988	7955

23373 7590 10/12/2005

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EXAMINER

PAYNE, DAVID C

ART UNIT PAPER NUMBER

2638

DATE MAILED: 10/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/881,722	PAOLI, GIOVANNI	
	<b>Examiner</b>	<b>Art Unit</b>	
	David C. Payne	2638	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-12 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. <u>20051006</u> . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                                    |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____.  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.
2. During a telephone interview with Mr. Paul Wilson on October 5, 2005, the examiner indicated that the claims were allowable withstanding some minor changes to the claim language as noted on the interview summary form. However, the examiner discovered new prior art which is at least relevant to the independent claims 1, 7, 11 and 12 of the instant application. The rejection which follows is based on the claim language in the instant application and not as suggested by the applicant in the telephone interview.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 1-6, 8, 10 and 11 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 1 recites the limitation "wherein it further comprises ..." [emphasis added] in line 5. There is insufficient antecedent basis for this limitation in the claim. It is not clear what "it" refers to in the claim.

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4. Claim 3 recites the limitation "... the **output** aperture." [emphasis added] in line 3. There is insufficient antecedent basis for this limitation in the claim. The element was previously referred to as "a single aperture".
5. Claim 4 recites the limitation "... the **output** aperture." [emphasis added] in line 1. There is insufficient antecedent basis for this limitation in the claim. The element was previously referred to as "a single aperture".
6. Claim 5 recites the limitation "... the main dish." in line 3. There is insufficient antecedent basis for this limitation in the claim.
7. Claim 6 recites the limitation "... the surface of." in line 4. There is insufficient antecedent basis for this limitation in the claim.
8. Claim 8 recites the limitation "... the source." in line 3. There is insufficient antecedent basis for this limitation in the claim.
9. Claim 8 recites the limitation "... the main dish." in lines 5 and 7. There is insufficient antecedent basis for this limitation in the claim.
10. Claim 10 recites the limitation "... the main dish." in lines 2 and 3. There is insufficient antecedent basis for this limitation in the claim.
11. The term " near " in line **6 of claim 1** is a relative term that renders the claim indefinite. The term "near" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of

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the invention.

12. The term " small " in **line 3 of claim 6** is a relative term that renders the claim indefinite. The term " small " is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

13. The term " near " in **line 6 of claim 11** is a relative term that renders the claim indefinite. The term "near" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1, 6/1, 7, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schairer US 6,301,035 B1 (Schairer) in view of Fischer et al. US 6,091,529 (Fischer).

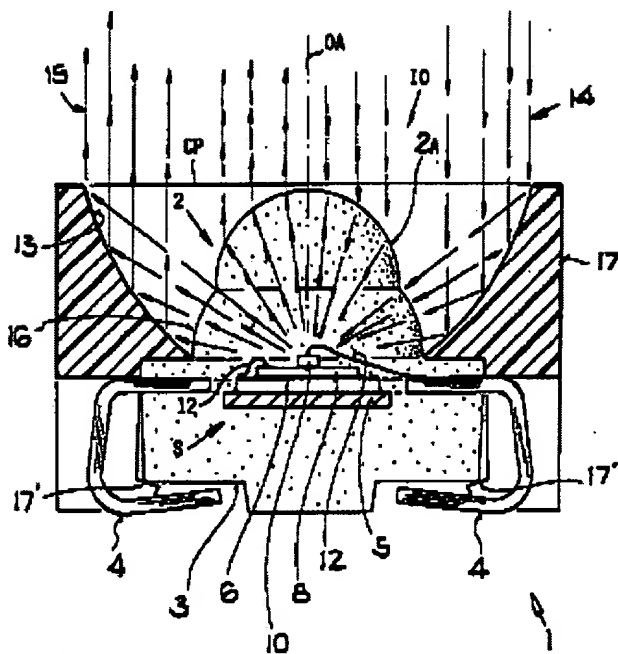


FIG. 1

Re claims both claims 1 and 11 (insofar as it is understood based on the 112 2<sup>nd</sup> rejection above) and 7 and 12 Schairer disclosed

A transceiver for transmitting signals coming from a source (Figure 1 #10) of signal-carrying light (15 of Figure 1) to another transceiver (not shown) and for receiving signals (14 of Figure 1), said transceiver comprising a receiving reflecting surface (Figure 13 of Figure 1) for reflecting the received signal-carrying light, wherein it further comprises an aperture for outputting the light to be transmitted, said single aperture extending near to the outer edge of the receiving surface (entire cavity formed by reflecting paraboloid (13 of Figure 1, see e.g., Schairer col./lines: 3/65-67 and 4/1-5).

Schairer does not disclosed transmitting or receiving coherent light.

Fischer disclosed using coherent light. It would have been obvious to one of ordinary skill in the art at the time of invention to use coherent light in the Schairer invention for the advantage of keeping the optical frequency used for transmission freely selectable within a wide range, as disclosed by Fischer (Col. 2, lines 50-60).

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Re claim 6/1 (insofar as it is understood based on the 112 2<sup>nd</sup> rejection above), the modified invention of Schairer and Fischer does not disclose overlapping beams from the respective transmitters.

However, it would have been obvious to one of ordinary skill in the art at the time of invention that the transmitted and received beams would necessarily overlap from two similar transmitters transmitting and receiving information from each other. One is motivated as such since oppositely aligned transceivers beams would have to overlap during communication given that the detector and transmitter optical transmission axis and receiving axis are collinear.

#### ***Allowable Subject Matter***

5. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. Claims 2-5, (6/2, 6/3, 6/4 or 6/5), 8 and 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Payne whose telephone number is (571) 272-3024. The examiner can normally be reached on M-F, 7a-4p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dcp

  
**David C. Payne**  
**Patent Examiner**  
**AU 2638**